

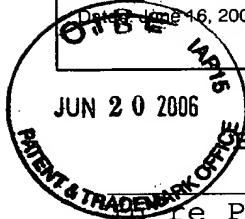
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(Andrew T. Zidel)

Docket No.: SONYJP 3.3-1245
(PATENT)



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Re Patent Application of:
Fumitake Yodo

Application No.: 09/600,509

Confirmation No.: 7100

Filed: July 17, 2000

Art Unit: 3627

For: TERMINAL, CHARGING SYSTEM, AND
DATA PROCESSING METHOD

Examiner: A. J. Fischer

MS Appeal Brief - Patents
Commissioner for Patents
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Alexandria, VA 22313-1450

APPELLANT'S REPLY BRIEF ON APPEAL

Dear Sir:

The present Reply Brief is responsive to the Examiner's Answer dated April 19, 2006.

As an initial matter, Appellant notes that the original Power of Attorney has been revoked and a new Power of Attorney was filed on January 16, 2006.

Initially, a brief description of the present accounting system is provided. As seen in FIG. 1, the accounting system includes a terminal device and an accounting center. An embodiment of the terminal device may be found in FIG. 3. In an example, a user may access received information without an accounting process having to occur between the terminal device and the accounting center. Accounting point information may be changed locally in the terminal device, for instance when the

received information is made available to the user. Thus, the user need not wait for an accounting procedure to be completed between the terminal device and the accounting center before using the received information. Remaining accounting point information may subsequently be sent from the terminal device to the accounting center, where an accounting process may be performed based on the remaining accounting point information. The remaining accounting point information may be set to an initial value based on the results of the accounting process.

THE GROUND OF REJECTION IN VIEW OF THE EXAMINER'S ANSWER

Claims 1, 4, 5, and 7 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,857,020 ("Peterson") in view of U.S. Patent No. 6,434,535 ("Kupka"), U.S. Patent No. 5,539,825 ("Akiyama"), and "How Computers Work by Ron White ("White"). Claims 4, 5, and 7 depend from independent claim 1.

STATUS OF CLAIMS

This application was originally filed with 12 claims. Claims 1 and 3-7 were amended and claims 2 and 7-12 were canceled by the Amendment mailed April 17, 2002. Claims 1 and 4-7 were amended and claim 3 was canceled by the Amendment mailed August 15, 2002. Claims 1, 4, 5, and 7 were amended and claim 6 was canceled by the Amendment mailed March 13, 2003. Claims 1 and 4 were amended by the Amendment mailed July 30, 2003. Claim 1 was amended by the Amendment mailed February 20, 2004. Claim 1 was amended by the Amendment mailed June 18, 2004. Claim 1 was amended by the Amendment mailed June 10, 2005. A Final Office Action was mailed on September 12, 2005 finally rejecting claims 1, 4, 5, and 7. Claims 1, 4, 5, and 7 stand finally rejected and are the basis of this Appeal.

ARGUMENTS

Appellant submits this reply to address several issues presented by the Examiner's Answer, including (1) consideration and patentable weight of the "adapted to" language of the claims, (2) the deficiencies of *Peterson* with respect to the claimed "second memory" and "second controller," (3) the lack of inherency in *Peterson* of certain claimed features, and (4) the failure of *Kupka*, *Akiyama*, and *White* to overcome the deficiencies of *Peterson*. These issues will be addressed in detail below.

I. THE "ADAPTED TO" LANGUAGE OF THE CLAIMS SHOULD BE GIVEN PATENTABLE WEIGHT

Independent claim 1, as presented on appeal, recites:

1. An accounting system including an accounting center and a terminal device for communicating with the accounting center, comprising:

a first memory built in the terminal device and adapted to store accounting point information;

a second memory included in the terminal device and adapted to store information received from an external source external to the terminal device;

a first controller included in the terminal device and adapted to update the accounting point information stored in the first memory and to update attributes of the received information when the received information is stored in the second memory,

wherein when the received information is stored into the second memory the first controller reduces the accounting point information stored in the first memory and updates the attributes of the received information from an unavailable state to an available state; and

a second controller included in the terminal device and adapted to transmit the remaining accounting point information stored in the first memory to the accounting center and to set the remaining accounting point information to an initial value based on an accounting processing status received by the terminal device from the accounting center corresponding to the remaining accounting point information, wherein the accounting center performs an accounting process based on the remaining accounting

point information transmitted from the terminal device.

(Emphasis added.)

The Office Action of September 12, 2005, states that "As noted in the previous office actions, the Examiner has again 'considered' all limitations. To the extent that the Examiner has considered them, they have been given 'full weight.' To the extent the prior art must expressly recite the claim function, they are given less weight since the prior art structure is clearly capable of performing the claimed function." (Office Action Part 17, at 7, Sept. 12, 2005.)

However, while the Examiner may have considered the "adapted to" limitations, he does not appear to have given such limitations any patentable weight. The September 12, 2005 Office Action and Examiner's Answer recite multiple cases in support of the Examiner's position that statements of intended use are either not positive limitations or do not have patentable weight. For instance, *Ex parte Minks*, 169 U.S.P.Q. 120 (B.P.A.I. 1971) and *In re Hutchison*, 154 F.2d 135 (C.C.P.A. 1946) dealt with general statements of intended use in the preamble, and *In re Schreiber*, 128 F.3d 1473 (Fed. Cir. 1997) dealt with a statement submitted by an applicant via a declaration.

However, the M.P.E.P. and recent case law are clear that limitations in a claim which are material to patentability cannot be ignored.

Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure. However, examples of claim language, although not exhaustive, that may raise a question as to the limiting effect of the language in a claim are:

(A) "adapted to" or "adapted for" clauses;

- (B) "wherein" clauses; and
- (C) "whereby" clauses.

The determination of whether each of these clauses is a limitation in a claim depends on the specific facts of the case. In *Hoffer v. Microsoft Corp.*, 405 F.3d 1326, 1329, 74 USPQ2d 1481, 1483 (Fed. Cir. 2005)

M.P.E.P. § 2111.04 (8th ed. Rev. 3 August 2005).

According to *Hoffer*, "when the 'whereby' clause states a condition that is material to patentability, it cannot be ignored in order to change the substance of the invention." *Hoffer*, 405 F.3d at 1329 (emphasis added). In the instant claims, the limitations at issue are "adapted to" clauses instead of "whereby" clauses, but the analysis remains unchanged. The phrases "adapted to store," "adapted to update," "adapted to transmit . . . and to set" are not mere statements of intended use of the invention as in *Minks*, *Hutchison*, and *Schreiber*. Rather, these limitations set forth operations that various structural elements, including the first and second memories and the first and second controllers, are able to perform. *Peterson*, *Kupka*, *Akiyama*, and *White*, either alone or in combination, neither disclose nor suggest all of the limitations of the claims, including the "adapted to" limitations of the claims. Thus, the "adapted to" limitations are material to patentability and should be considered accordingly.

II. PETERSON DOES NOT DISCLOSE THE CLAIMED "SECOND MEMORY" AND "SECOND CONTROLLER" LIMITATIONS

According to the Examiner's Answer, *Peterson* discloses both a second memory and a second controller as claimed in claim 1. The Examiner's Answer quotes from the September 12, 2005 Office Action, stating that *Peterson* discloses "a second memory (memory

storing 79)" and "a second controller (the digital-to-analog converter within 40)." (Examiner's Answer Part 2, at 4.) Applicant respectfully disagrees with this assertion.

Claim 1 requires that the second memory be "included in the terminal device and adapted to store information received from an external source external to the terminal device." In contrast, element 79 of *Peterson* is secured data, as shown in FIG. 3, which is included as content of storage medium 70. The Examiner's Answer asserts that "to be especially clear," the entirety of FIG. 3 of *Peterson* is a "terminal device." (Examiner's Answer Part 1, at 4.) However, while the specification states with respect to FIG. 1 that a storage medium 10 and corresponding medium reader 12 are coupled to controller 14, there is simply no discussion in *Peterson* that the storage medium 70 is included in the controller 86. Thus, Appellant contends that *Peterson* does not disclose the second memory as claimed.

Claim 1 also requires a second controller as recited above. An example of the second controller in the instant application may be CPU 11, which is shown in FIG. 3 of the instant application. In support thereof, reference is made to the present specification wherein the following is recited:

Meanwhile, the actual accounting, for example, the processing for drawing the fee from the bank account of the user is carried out at the distribution/accounting center 1 through communication between the CPU 11 and the distribution/accounting center 1, which is carried out periodically or when the number of points PT is insufficient.

(Substitute Specification 50 11.19-24.)

When the OK notification is sent from the distribution/accounting center 1, the CPU 11 advances from step S10 to step S11 of Fig. 8 and transmits the number of points PT and the point user record stored in the point memory 45 at that time to the distribution/accounting center 1.

(Substitute Specification 55 11.14-18.)

When an OK notification is sent from the distribution/accounting center 1, the CPU 11 of the recording/reproducing device 10 determines that the accounting processing by the distribution/accounting center 1 ends properly, and proceeds from step S12 to step S14 to initialize the point memory 45. That is, the CPU 11 restores the number of points PT to the initial value and clears the point use record. Thus, the periodical accounting processing ends.

(Substitute Specification 56 11.18-25.)

The Examiner's Answer, as quoted above, asserts that a second controller may be found in the digital to analog converter within the modem 40 of *Peterson*. Appellant notes that while the embodiment of *Peterson's* FIG. 1 illustrates modem 40, the embodiment of FIG. 3 of *Peterson* is devoid of any reference to modem 40. Also, the Examiner provides no support that the embodiments of FIGS. 1 and 3 of *Peterson* can be combined in the manner set forth by the Examiner. Even though the sole embodiment the Examiner relies on (i.e., FIG. 3 of *Peterson*) does not include a modem, the Examiner contends that a modem (or more appropriately a digital to analog converter in the modem) is a "controller," and makes reference to the *Microsoft Press Computer Dictionary* (3rd ed. 1997) ("*Microsoft*") in support of this contention.

Appellant notes that the full definition of a controller from *Microsoft* gives an example, namely a "disk controller, for example, controls access to one or more disk drives, managing physical and logical access to the drive or drives." Appellant observes that *Microsoft* defines a digital to analog converter as a "device that translates digital data to an analog signal." Even should the Board adopt *Microsoft's* definition of a controller, it is not enough to look at the term in the abstract

and conclude that a modem (or a digital to analog converter in the modem) is a controller. Instead, one must look to the controller as specifically set forth in claim 1. When this is done, it is evident that neither *Peterson's* modem nor the analog to digital converter thereof is a "controller" as that term is used in claim 1.

The Examiner's Answer refers to *White* for an exemplary modem, and then states "[c]learly a modem is 'adapted to transmit[] remaining accounting point information stored in the first memory to the accounting center. In other words, 'but for' the modem, the system in *Peterson* '020 would not be able to convert or transmit to the 'automatic Online process." (Examiner's Answer Part 4, at 6.) As noted above, the embodiment of FIG. 3 of *Peterson* does not disclose a modem. While *Peterson* states that the embodiment of FIG. 3 may include updating of prepaid funds through an automatic online process, there is simply no discussion in the embodiment of FIG. 3 that this necessitates transmitting remaining accounting point information to an authorization or accounting center. By way of example only, updating of the prepaid funds with the updated online process could merely entail requesting an authorization center to increase the prepaid funds by a set amount without having to transmit the current value of the prepaid funds from the secure card 88 to the accounting center.

Even assuming, *arguendo*, that modem 40 or a digital to analog converter within modem 40 is adapted to transmit remaining accounting point information in a first memory to an accounting center, there is simply no teaching or suggestion in *Peterson* that the digital to analog converter itself or any other part of modem 40 is able "to set the remaining accounting point information to an initial value based on an accounting processing status received by the terminal device from the accounting center corresponding to the remaining accounting

point information" as claimed. Thus, *Peterson* is also deficient as it does not disclose the claimed second controller.

**III. *PETERSON* DOES NOT INHERENTLY DISCLOSE
SETTING REMAINING ACCOUNTING POINT
INFORMATION TO AN INITIAL VALUE**

The Examiner has argued that it is inherent in the automatic online process of *Peterson* for the modem/digital to analog converter "to set the remaining accounting point information to an initial value based" as claimed. Specifically, the Examiner stated:

the second controller transmits the remaining accounting point information (for an increase in funds) and the accounting point information is reset to an initial value (e.g. greater than or equal to \$5) based upon the status of the account processing system (payment was received) (inherent in the 'automatic Online process') at column 9, lines 44-53)....*Peterson* '020 is silent as to whether or not the accounting points in the user's card or elsewhere.

(Examiner's Answer Part 2, at 4.) However, the cited portion of *Peterson* relied on by the Examiner actually states:

Furthermore, in this embodiment of the controller 86 the secure card 88 is programmed to provide the TOD clock 90 and as well maintain an amount of funds 91 prepaid by the consumer, a list 92 of authorized access records and a decryption key 93. The amount of prepaid funds 91 may be adjusted in return for receiving monetary compensation and the particular decryption key 93 updated periodically, for instance, by an authorization center (not shown) which the consumer may visit for manual updating of these values or through an automatic online process.

(*Peterson* col.9 ll.44-53.)

Although this portion of *Peterson* appears to indicate that the prepaid funds amount may be adjusted via an online process, such portion of *Peterson* does not disclose

a second controller included in the terminal device and adapted to transmit the remaining accounting point information stored in the first memory to the accounting center and to set the remaining accounting point information to an initial value based on an accounting processing status received by the terminal device from the accounting center corresponding to the remaining accounting point information

as claimed.

"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.'" *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (quoting *Cont'l Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991)). "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Id.* (quoting *In re Oelrich*, 666 F.2d 578 (C.C.P.A. 1981) (emphasis added)).

The Examiner's Answer has failed to show that setting "the remaining accounting point information to an initial value based" is necessarily performed by the modem/digital to analog converter of *Peterson*. Therefore, a showing of inherency has not been established.

IV. KUPKA AND AKIYAMA FAIL TO OVERCOME THE DEFICIENCIES OF PETERSON

The Examiner's Answer asserts that

Akiyama directly discloses storing the accounting points on the user's card. Moreover, Kupka discloses a process where the user's accounting points are updated. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify *Peterson* '020 as taught by Kupka and Akiyama to include the missing inherencies.

(Examiner's Answer Part 2, at 4.)

In order to establish a prima facie case for obviousness, "there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." M.P.E.P. § 2143. According to the M.P.E.P., "the proper inquiry is 'whether there is something in the prior art as a whole to suggest the *desirability*, and thus the obviousness, of making the combination.'" (M.P.E.P. § 2143.01 (quoting *In re Fulton*, 391 F.3d 1195, 1200-01 (emphasis in original))). As stated in *In re Oetiker*, 977 F.2d 1443 (Fed. Cir. 1992):

There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge cannot come from the applicant's invention itself.

Id. 977 F.2d at 1447.

In the instant case, with regard to *Akiyama*, the Examiner's Answer asserts that one would be motivated to use *Akiyama's* process in *Peterson* "in order to help reduce fraud." (Examiner's Answer Part 8, at 7.) No explanation from the prior art or discussion of the teachings or motivation of the prior art supports this contention. With regard to *Kupka*, the Examiner's Answer provides no motivation for incorporating the teachings of this reference into *Peterson*.

Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references...Combining prior art references without evidence of such a suggestion, teaching or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability - the essence of hindsight.

In re Dembiczak, 175 F.3d 994, 999 (Fed. Cir. 1999).

As stated in Appellant's brief, Akiyama is directed to security enhancement in a cashless electronic transaction system. Akiyama discloses that once "the holder of the IC card. 42 inputs a transfer amount . . . the ATM 44A reads the balance stored in an IC card ledger file 54 (shown in FIG. 7) of the IC card 42 and sends to the bank center 44 data on the stored balance and on the transfer amount after coding the data. (Akiyama col.9 11.21-24.) Specifically,

the IC card 42 reads the balance data stored in the IC card ledger file 54. Then the IC card 42 has the IC card CODED 57 code the balance data stored in the IC card ledger file 54 by using the session key and sends the coded balance data via the ATM 44A to the bank center 44.

(*Id.* col.13 11.14-19.) However, these procedures "have a weakness in allowing money to be transferred fraudulently if the key . . . is intercepted." (*Id.* col.13, 11.44-47.) "Only when the response data properly identifies the communicant as the bank center 44 does the IC card 42 allow the IC card ledger file 54 to store the new balance, thereby preventing the IC card ledger file 54 from receiving fake data." (*Id.* col.13 11.61-65.)

However, Akiyama does not disclose that the communication by the IC card 42 is done by a modem or by a digital to analog converter in a modem. Akiyama also does not disclose an automatic online process, but rather user initiated replenishment. Furthermore, as previously indicated, the Examiner's Answer contends that the motivation to modify Peterson based on Akiyama is to reduce fraud. However, Peterson already includes encryption and decryption capabilities, as shown in decryption key 93, key buffer 95, and decryption algorithm 97 of FIG. 3 of Peterson. Accordingly, since Peterson utilizes encryption and decryption techniques (which arguably

may be utilized to reduce fraud) the need or motivation to combine *Peterson* and *Akiyama* as asserted by the Examiner may not exist. In addition, it is the processor 94 that performs encryption and decryption, not modem 40 or a digital to analog converter in modem 40. Thus, even if *Peterson* is modified as disclosed in *Akiyama*, it would be the processor 94, not modem 40 or any components thereof which would encrypt account information.

While the Examiner's Answer is devoid of a motivation to import the teachings of *Kupka* into *Peterson*, the September 12, 2005 Office Action refers to the "replenishing process as shown in *Kupka*'s Figure 8," stating "[s]uch a modification would have directly disclosed at least one automatic online process in *Peterson* '020 to add value to the user's card." (Office Action Part 7, at 4, Sept 12, 2005.)

However, *Kupka* does not disclose adding value to a user's card. In contrast, *Kupka* discloses a system including a plurality of media servers, E-commerce servers and user devices in which a media server, not a user device, keeps track of a prepaid amount associated with media 28. "If the media 28 does not have a sufficient balance to cover the cost of the electronic content to be downloaded, then at step 324, a rejection process is executed, which will be described with reference to FIG. 8." (*Kupka* col.16 ll.51-54.) Specifically:

Referring to FIG. 8, there is shown the rejection process (from step 324 in FIG. 7) that is performed if the balance associated with the media's unique identifier is less than the cost of the content to be downloaded. If the media tracking server 16a determines the balance associated with the media's unique identifier is less than the cost of the content to be downloaded (step 400), then the E-commerce server is notified at step 402. Next, an error indication is communicated to the client PC application, via TCP/IP sockets and an appropriate data structure. At step 404 the client application prompts the user with an error message, and preferably

asks if the user would like to replenish the prepaid amount of the media 28. The user enters a response at step 312, and if the user selects no, then the application ends at step 408.

If the user selects yes, then the application obtains payment information from the user at step 410. The balance may be replenished using a credit card, electronic transfer from a bank account or investment firm, etc. The client program then verifies that the media 28 in the media drive 52 is the same media from which the unique identifier was read in step 302 by reading the unique identifier again and comparing the two identifiers. If the two identifiers fail to match, then the process ends at 414 and an error message is generated.

If the two identifiers match, then at step 416, the user-selected replenishment amount is approved by known means and added to the balance stored on the media tracking server 16a. From step 416, the process returns to step 306 in FIG. 7 to complete the process.

(Id. col.17 1.47 to col.18 1.8 (emphasis added).)

Thus, it is apparent that Kupka does not disclose storing accounting point information in a memory of a terminal device, transmitting the remaining accounting point information from the terminal device memory to an accounting center, or setting the remaining accounting point information in the terminal device memory to an initial value as claimed.

There is simply no proper teaching or motivation in Akiyama or Kupka to redesign or reengineer a digital to analog converter of modem 40 of Peterson in order to arrive at the second controller as claimed in independent claim 1. Even if one did modify Peterson with Akiyama or Kupka, either alone or in combination, which Appellant does not believe is proper, it still would not result in the claimed invention.

Rather than finding the motivation to combine/modify the references in the prior art, the rejection is a classic example of hindsight reconstruction in which features are selected from different prior art references to create the subject matter claimed in independent claim 1. However, the law is clear. "It

is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." *In re Fritch*, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992.)

In view of the foregoing, it is respectfully submitted that independent claim 1 and subject dependent claims 4, 5, and 7 patentably distinguish over the rejection in view of *Peterson*, *Akiyama*, *Kupka*, and *White*.

Dated: June 16, 2006

Respectfully submitted,

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